Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for manufacturing a semiconductor device, the method comprising:

forming a semiconductor film over a first substrate;

forming an insulating film over the semiconductor film;

forming a conductive film over the insulating film;

performing a first etching in a chamber to form a first shape of the conductive film;

cleaning [[~~a~~]] the chamber, the cleaning comprising:

placing a second substrate in the chamber, wherein said second substrate is not to form a semiconductor device;

filling the chamber with a cleaning gas, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas; and

generating plasma from the cleaning gas to remove BO_x adhered to an inside of the chamber as a residue;

placing the first substrate with the conductive film, the insulating film and the semiconductor film in the cleaned chamber; and

performing a second etching ~~the conductive film~~ in the cleaned chamber to form a second shape of the conductive film.

2. (Previously Presented) The method of claim 1, wherein etching includes etching using a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

3. (Previously Presented) The method of claim 1, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

4. (Previously Presented) The method of claim 1, wherein the second substrate includes quartz.

5. (Previously Presented) The method of claim 1, wherein cleaning includes replacing an etching gas in the chamber with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas each of which is added with O_2, and plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2.

6. (Currently Amended) The method of claim 1, wherein ~~cleaning includes removing BO_x from an~~ part of the inner surface of the chamber is quartz.

7. (Previously Presented) The method of claim 1, wherein forming the semiconductor film over the substrate includes forming an island shaped semiconductor film over the substrate.

8. (Currently Amended) A method for manufacturing a semiconductor device, the method comprising:

forming a conductive film over a substrate;

performing a first etching in a chamber to form a first shape of the conductive film;

cleaning [[~~a~~]] the chamber, the cleaning comprising:

placing a dummy substrate in the chamber;

filling the chamber with a cleaning gas~~, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine based gas~~; and

generating plasma from the cleaning gas to remove BO_x adhered to an inside of the chamber as a residue;

placing the substrate with the conductive film having the first shape in the cleaned chamber; and

performing a second etching ~~the conductive film~~ in the cleaned chamber to form a second shape of the conductive film.

9. (Previously Presented) The method of claim 8, wherein etching includes a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

10. (Previously Presented) The method of claim 8, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

11. (Previously Presented) The method of claim 8, wherein the substrate is a glass substrate.

12. (Previously Presented) The method of claim 8, wherein the plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2.

13. (Previously Presented) The method of claim 8, wherein the dummy substrate includes quartz.

14. (Currently Amended) The method of claim 8, wherein ~~cleaning the chamber includes removing BO_x from an~~ part of the inner surface of the chamber is quartz.

15. (Currently Amended) A method for manufacturing a semiconductor device, the method comprising:

forming a semiconductor film over a first substrate;

forming an insulating film over the semiconductor film;

forming a conductive film comprising tungsten over the insulating film;

performing a first etching in a chamber to form a first shape of the conductive film;

cleaning [[~~a~~]] the chamber, the cleaning comprising:

placing a second substrate in the chamber, wherein said second substrate is not to form the semiconductor device;

filling the chamber with a cleaning gas, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas; and

generating plasma from the cleaning gas;

placing the first substrate with the conductive film comprising tungsten, the insulating film, and the semiconductor film in the cleaned chamber; and

performing a second etching ~~the conductive film comprising tungsten~~ in the cleaned chamber to form a second shape of the conductive film.

16. (Previously Presented) The method of claim 15, wherein etching includes a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

17. (Previously Presented) The method of claim 15, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

18. (Previously Presented) The method of claim 15, wherein the dummy substrate includes quartz.

19. (Previously Presented) The method of claim 15, wherein cleaning the chamber includes generating the plasma from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2.

20. (Previously Presented) The method of claim 15, wherein cleaning the chamber includes removing BO_x from an inner surface of the chamber.

21. (Previously Presented) The method of claim 15, wherein etching the conductive film includes etching the conductive film with a plasma generated from a mixture of Cl_2, SF_6, and O_2.

22. (Currently Amended) A method for manufacturing a semiconductor device, the method comprising:

forming a conductive film comprising tungsten over a substrate;

performing a first etching in a chamber to form a first shape of the conductive film;

cleaning [[~~a~~]] the chamber, the cleaning comprising:

placing a dummy substrate in the chamber;

filling the chamber with a cleaning gas~~, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas~~; and

generating plasma from the cleaning gas;

placing the substrate with the conductive film ~~comprising tungsten~~ having the first shape in the cleaned chamber; and

performing a second etching ~~the conductive film comprising tungsten~~ in the cleaned chamber to form a second shape of the conductive film.

23. (Previously Presented) The method of claim 22, wherein cleaning includes etching the chamber using an etching method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method is adopted in the plasma etching apparatus.

24. (Previously Presented) The method of claim 22, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

25. (Previously Presented) The method of claim 22, wherein the substrate is a glass substrate.

26. (Previously Presented) The method of claim 22, wherein cleaning includes replacing an etching gas in the chamber with the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2, and plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2.

27. (Previously Presented) The method of claim 22, wherein cleaning includes replacing an etching gas in the chamber with the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas.

28. (Previously Presented) The method of claim 22, wherein the dummy substrate includes quartz.

29. (Currently Amended) A method for manufacturing a semiconductor device, the method comprising:

forming a semiconductor film over a first substrate;

forming an insulating film over the semiconductor film;

forming a first conductive film over the insulating film;

forming a second conductive film over the first conductive film;

performing a first etching in a chamber to form a first shape of the first conductive film and a first shape of the second conductive film;

cleaning [[~~a~~]] the chamber, the cleaning comprising:

placing a second substrate in the chamber, wherein said second substrate is not to form the semiconductor device;

filling the chamber with a cleaning gas, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas; and

generating plasma from the cleaning gas to remove BO_x adhered to an inside of the chamber as a residue,

placing the first substrate with the second conductive film having the first shape, the first conductive film having the first shape, the insulating film, and the semiconductor film in the cleaned chamber; and

performing a second etching ~~at least the second conductive film~~ in the cleaned chamber to form at least a second shape of the second conductive film.

30. (Previously Presented) The method of claim 29, further comprising etching the inside of the chamber with the generated plasma, wherein etching includes a method selected form the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

31. (Previously Presented) The method of claim 29, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

32. (Previously Presented) The method of claim 29, wherein forming the semiconductor film over the first substrate includes forming an island shaped semiconductor film over the substrate.

33. (Previously Presented) The method of claim 29, wherein:

filling the chamber with Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas includes filling the chamber with the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas and adding O_2 to the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas such that the plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas, and the added O_2.

34. (Previously Presented) The method of claim 29, wherein the second substrate includes quartz.

35. (Previously Presented) The method of claim 29, further comprising etching the inside of the chamber with the generated plasma such that BO_x is removed from an inner surface of the chamber.

36. (Currently Amended) A method for manufacturing a semiconductor device, the method comprising:

forming a first conductive film over a substrate;

forming a second conductive film over the first conductive film;

performing a first etching in a chamber to form a first shape of the first conductive film and a first shape of the second conductive film;

cleaning [[~~a~~]] the chamber, the cleaning comprising:

placing a dummy substrate in the chamber;

filling the chamber with a cleaning gas~~, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine based gas~~; and

generating plasma from the cleaning gas to remove BO_x adhered to an inside of the chamber as a residue;

placing the substrate with the second conductive film having the first shape and the first conductive film having the first shape in the cleaned chamber; and

performing a second etching ~~at least the second conductive film~~ in the cleaned chamber to form at least a second shape of the second conductive film.

37. (Previously Presented) The method of claim 36, further comprising etching the inside of the chamber with the generated plasma, wherein etching includes a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a

helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

38. (Previously Presented) The method of claim 36, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

39. (Previously Presented) The method of claim 36, wherein the substrate is a glass substrate.

40. (Previously Presented) The method of claim 36, wherein:

filling the chamber with Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas includes filling the chamber with the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas and adding O_2 to the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas such that plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas, and the added O_2.

41. (Previously Presented) The method of claim 36, wherein the dummy substrate includes quartz.

42. (Previously Presented) The method of claim 36, further comprising etching the inside of the chamber with the generated plasma such that BO_x is removed from the inside of the chamber.

43. (Previously Presented) A method for manufacturing a semiconductor device, the method comprising:

forming a semiconductor film over a first substrate;

forming an insulating film over the semiconductor film;

forming a first conductive film over the insulating film;

forming a second conductive film over the first conductive film;

etching the second conductive film and the first conductive film in a chamber;

cleaning the chamber, the cleaning comprising:

placing a second substrate in the chamber, wherein said second substrate is not to form the semiconductor device;

filling the chamber with a cleaning gas, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas; and

generating plasma from the cleaning gas,

placing the first substrate with the second conductive film, the first conductive film, the insulating film, and the semiconductor film in the cleaned chamber; and

etching at least the second conductive film in the cleaned chamber.

44. (Previously Presented) The method of claim 43, further comprising etching the inside of the chamber with the generated plasma, wherein etching includes a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

45. (Previously Presented) The method of claim 43, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

46. (Previously Presented) The method of claim 43, wherein forming the semiconductor film over the first substrate includes forming an island shaped semiconductor film over the substrate.

47. (Previously Presented) The method of claim 43, wherein the etching gas is replaced with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas each of which is added with O_2, and plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2.

48. (Previously Presented) The method of claim 43, wherein the second substrate includes quartz.

49. (Previously Presented) The method of claim 43, further comprising etching the inside of the chamber with the generated plasma such that BO_x is removed from the inside of the chamber.

50. (Previously Presented) A method for manufacturing a semiconductor device, the method comprising:

forming a first conductive film over a substrate;

forming a second conductive film over the first conductive film;

etching the second conductive film and the first conductive film in a chamber;

cleaning the chamber, the cleaning comprising:

placing a dummy substrate in the chamber;

filling the chamber with a cleaning gas, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas; and

generating plasma from the cleaning gas,

placing the substrate with the second conductive film and the first conductive film in the cleaned chamber; and

etching at least the second conductive film in the cleaned chamber.

51. (Previously Presented) The method of claim 50, further comprising etching the inside of the chamber with the generated plasma, wherein etching includes a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

52. (Previously Presented) The method of claim 50, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

53. (Previously Presented) The method of claim 50, wherein the first substrate is a glass substrate.

54. (Previously Presented) The method of claim 50, wherein:

replacing the etching gas includes replacing the etching gas with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas each of which is added with O_2, and

generating the plasma includes generating the plasma from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2.

55. (Previously Presented) The method of claim 50, wherein the dummy substrate includes quartz.

56. (Previously Presented) The method of claim 50, further comprising etching the inside of the chamber with the generated plasma such that BO_x is removed from the inside of the chamber.

57. (Currently Amended) A method for manufacturing semiconductor devices, the method comprising:

~~manufacturing a first semiconductor device, the manufacturing comprising:~~

~~performing a first plasma etching using a first etching gas containing BCl_3 in a chamber;~~

~~cleaning the chamber, the cleaning comprising:~~

~~replacing the first etching gas in the chamber with a cleaning gas, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas after the first plasma etching;~~ ~~and~~

~~generating plasma from the cleaning gas in the chamber; and~~

~~manufacturing a second semiconductor device, the manufacturing comprising:~~

~~forming a semiconductor film over a substrate;~~

~~forming an insulating film over the semiconductor film;~~

~~forming a conductive film over the insulating film;~~

~~placing the substrate with the conductive film, the insulating film, and the semiconductor film in the cleaned chamber; and~~

~~performing a second plasma etching to etch the conductive film using a second etching gas in the cleaned chamber~~

forming a conductive film over an island shape semiconductor film with a gate insulating film interposed therebetween;

etching the conductive film in a chamber to form a first shape of the conductive film by using an etching gas;

replacing the first etching gas in the chamber with a cleaning gas;

generating plasma from the cleaning gas to remove BO_x adhered to an inside of the chamber as a residue; and

etching the conductive film in the cleaned chamber to form a second shape of the conductive film.

58. (Previously Presented) The method of claim 57, wherein etching includes etching using a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

59. (Currently Amended) The method of claim 57, wherein the cleaning gas comprises Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas, and wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

60. (Previously Presented) The method of claim 57, further comprising placing a dummy substrate in the chamber during cleaning.

61. (Previously Presented) The method of claim 57, wherein the etching gas is replaced with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas each of which is added with O_2, and plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2.

62. (Currently Amended) The method of claim 57, wherein ~~cleaning the chamber includes removing BO_x from an~~ part of the inner surface of the chamber is quartz.

63. (Previously Presented) The method of claim 60, wherein the dummy substrate includes quartz.

64. (Currently Amended) A method for manufacturing semiconductor devices, the method comprising:

~~manufacturing a first semiconductor device, the manufacturing comprising:~~

~~performing a first plasma etching using a first etching gas containing BCl_3 in a chamber;~~

~~cleaning the chamber, the cleaning comprising:~~

~~replacing the first etching gas in the chamber with a cleaning gas, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas after the first plasma etching; and~~

~~generating plasma from the cleaning gas in the chamber; and~~

~~manufacturing a second semiconductor device, the manufacturing comprising:~~

~~forming a semiconductor film over a substrate;~~

~~forming an insulating film over the semiconductor film;~~

~~forming a first conductive film over the insulating film;~~

~~forming a second conductive film over the first conductive film;~~

~~placing the substrate with the second conductive film, the first conductive film, the insulating film, and the semiconductor film in the cleaned chamber; and~~

~~performing a second plasma etching to etch at lease the second conductive film using a second etching gas in the cleaned chamber~~

forming a conductive film over an island shape semiconductor film with a gate insulating film interposed therebetween;

etching the conductive film in a chamber to form a first shape of the conductive film by using an etching gas;

introducing a cleaning gas in the chamber;

generating plasma from the cleaning gas to remove BO_x adhered to an inside of the chamber as a residue; and

etching the conductive film in the cleaned chamber to form a second shape of the conductive film.

65. (Previously Presented) The method of claim 64, wherein etching includes a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

66. (Currently Amended) The method of claim 64, wherein the cleaning gas comprises Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas, and wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

67. (Previously Presented) The method of claim 64, further comprising placing a dummy substrate in the chamber during cleaning.

68. (Previously Presented) The method of claim 64, wherein the etching gas is replaced with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas each of which is added with O_2, and plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2.

69. (Currently Amended) The method claim 64, wherein ~~cleaning the chamber includes removing BO_x from an~~ part of the inner surface of the chamber is quartz.

70. (Previously Presented) The method of claim 67, wherein the dummy substrate includes quartz.

71. (Currently Amended) A method for manufacturing semiconductor devices,the method comprising:

~~manufacturing a first semiconductor device, the manufacturing comprising:~~

~~performing a first plasma etching using a first etching gas containing BCl_3 in a chamber;~~

~~cleaning the chamber, the cleaning comprising:~~

~~replacing the first etching gas in the chamber with a cleaning gas, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas after the first plasma etching; and~~

~~generating plasma from the cleaning gas in the chamber; and~~

~~manufacturing a second semiconductor device, the manufacturing comprising:~~

~~forming a semiconductor film over a substrate;~~

~~forming an insulating film over the semiconductor film;~~

~~forming a conductive film over the insulating film;~~

~~placing the substrate with the conductive film, the insulating film, and the semiconductor film in the cleaned chamber; and~~

~~performing a second plasma etching to etch the conductive film using a second etching gas,~~

~~wherein:~~

~~a part of the chamber is made from quartz, and~~

~~a surface of the quartz is at least partly exposed to an inside of the chamber,~~

laminating a first conductive film and a second conductive film in sequence over an island shape semiconductor film with a gate insulating film interposed therebetween;

etching the first conductive film and the second conductive film in a chamber to form a first shape of the first conductive film and a first shape of the second conductive film, respectively, by using an etching gas;

replacing the etching gas in the chamber with cleaning gas;

generating plasma from the cleaning gas to remove BO_x adhered to an inside of the chamber as a residue; and

etching the first shape of the first conductive film and the first shape of the second conductive film in the chamber to form a second shape of the first conductive film and a second shape of the second conductive film, respectively.

72. (Previously Presented) The method of claim 71, further comprising etching the inside of the chamber with the generated plasma, wherein etching includes a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

73. (Currently Amended) The method of claim 71, wherein the cleaning gas comprises Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas, and wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

74. (Previously Presented) The method of claim 71, placing a dummy substrate in the chamber during cleaning.

75. (Previously Presented) The method claim 71, wherein:

replacing the etching gas in the chamber with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas includes replacing the etching gas with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas, and O_2, and

generating the plasma includes generating the plasma from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas, and the O_2.

76. (Previously Presented) The method for of claim 74, wherein the dummy substrate includes quartz.

77. (Previously Presented) The method of claim 71, further comprising etching the inside of the chamber with the generated plasma such that BO_x is removed from an inner surface of the chamber.

78. (Currently Amended) A method for manufacturing semiconductor devices, the method comprising:

~~manufacturing a first semiconductor device, the manufacturing comprising:~~

~~performing a first plasma etching using a first etching gas containing BCl_3 in a chamber;~~

~~cleaning the chamber, the cleaning comprising:~~

~~replacing the first etching gas in the chamber with a cleaning gas, said cleaning gas comprising Cl_2 or a mixed gas of Cl_2 and a fluorine based gas after the first plasma etching; and~~

~~generating plasma from the cleaning gas in the chamber; and~~

~~manufacturing a second semiconductor device, the manufacturing comprising:~~

~~forming a semiconductor film over a substrate;~~

~~forming an insulating film over the semiconductor film;~~

~~forming a first conductive film over the insulating film;~~

~~forming a second conductive film over the first conductive film;~~

~~placing the substrate with the second conductive film, the first conductive film, the insulating film, and the semiconductor film in the cleaned chamber; and~~

~~performing a second plasma etching to etch at least the second conductive film using a second etching gas in the cleaned chamber,~~

~~wherein:~~

~~a part of the chamber is made from quartz, and~~

~~a surface of the quartz is at least partly exposed to an inside of the chamber~~

laminating a first conductive film and a second conductive film in sequence over an island shape semiconductor film with a gate insulating film interposed therebetween;

etching the first conductive film and the second conductive film in a chamber to form a first shape of the first conductive film and a first shape of the second conductive film, respectively;

introducing a cleaning gas in the chamber;

generating plasma from the cleaning gas to remove BO_x adhered to an inside of the chamber as a residue; and

etching the first shape of the first conductive film and the first shape of the second conductive film in the chamber to form a second shape of the first conductive film and a second shape of the second conductive film, respectively.

79. (Previously Presented) The method of claim 78, further comprising etching the inside of the chamber with the generated plasma, wherein etching includes a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method.

80. (Currently Amended) The method of claim 78, wherein the cleaning gas comprises Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas, and wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

81. (Previously Presented) The method of claim 78, further comprising placing a dummy substrate in the chamber while the chamber is being cleaned.

82. (Previously Presented) The method of claim 78, wherein:

the etching gas is replaced with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas each of which is added with O_2, and

the plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2.

83. (Previously Presented) The method of claim 81, wherein the dummy substrate includes quartz.

84. (Previously Presented) The method of claim 78, further comprising etching the inside of the chamber with the generated plasma such that BO_x is removed from the inside surface of the chamber.

85. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

laminating a first conductive film and a second conductive film in sequence over an island shape semiconductor film with a gate insulating film interposed therebetween;

etching the first conductive film and the second conductive film to form a first shape of the first conductive film and a first shape of the second conductive film, respectively, by using a first etching gas;

replacing the first etching gas in a chamber with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas wherein BO_x is adhered to an inside of the chamber as a residue; [[~~and~~]]

generating plasma from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas to remove the BO_x; and

anisotropic etching the first shape of the first conductive film and the first shape of the second conductive film to form a second shape of the first conductive film and a second shape of the second conductive film, respectively.

86. (Original) A method for manufacturing a semiconductor device according to claim 85, wherein a width of the second shape of the first conductive film is longer than that of the second shape of the second conductive film in a channel length direction.

87. (Original) A method for manufacturing a semiconductor device according to claim 85, wherein a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method is adopted in the plasma etching apparatus.

88. (Original) A method for manufacturing a semiconductor device according to claim 86, wherein a method selected from the group consisting of an RIE etching method, an ICP etching method, an ECR etching method, a helicon wave etching method, a helical resonance etching method and a pulse modulation etching method is adopted in the plasma etching apparatus.

89. (Original) A method for manufacturing a semiconductor device according to claim 85, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

90. (Original) A method for manufacturing a semiconductor device according to claim 86, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

91. (Original) A method for manufacturing a semiconductor device according to claim 87, wherein the fluorine-based gas is selected from the group consisting of CF_4, SF_6 and NF_3.

92. (Original) A method for manufacturing a semiconductor device according to claim 85, wherein an etching gas is replaced with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas, or Cl_2 gas each of which is added with O_2, and plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2 to remove the BO_x.

93. (Original) A method for manufacturing a semiconductor device according to claim 86, wherein the etching gas is replaced with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas each of which is added with O_2, and plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2 to remove the BO_x.

94. (Original) A method for manufacturing a semiconductor device according to claim 87, wherein the etching gas is replaced with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas each of which is added with O_2, and plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2 to remove the BO_x.

95. (Original) A method for manufacturing a semiconductor device according to claim 89, wherein the etching gas is replaced with Cl_2 or a mixed gas of Cl_2 and a fluorine-based gas each of which is added with O_2, and plasma is generated from the Cl_2 or the mixed gas of Cl_2 and the fluorine-based gas each of which is added with O_2 to remove the BO_x.